

BOROUGH



OF CREWE

ANNUAL REPORT

OF THE

Medical Officer of Health

AND THE



Chief Public Health Inspector

FOR THE YEAR 1964

D. G. CRAWSHAW, M.B., Ch.B., D.C.H., D.P.H.

Medical Officer of Health

JOHN GASKELL, M.Inst., P.C., F.R.S.H., F.A.P.H.I.

Chief Public Health Inspector

B O R O U G H O F C R E W E

A N N U A L R E P O R T

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M E D I C A L O F F I C E R O F H E A L T H

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B O R O U G H O F C R E W E

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HEALTH COMMITTEE

Chairman:

Alderman Mrs. F.E. White (to June, 1964)

Councillor J. Perry (from June, 1964)

Members:

THE WORSHIPFUL THE MAYOR -

Councillor Mrs. N.V. Patrick, J.P.

Alderman W.R. Foulkes, J.P., C.C.

Alderman H. Kent

Alderman S. Orwell

Councillor E.W. Allcock

Councillor A.J. Beckett

Councillor J.A. Clews

Councillor R. Hinks

Councillor F. Holme

Councillor D. Holt

Councillor A.G. Merrill

Councillor T.F. Rumley

Councillor M. Scholes

Councillor H.L. Shore

B O R O U G H O F C R E W E

MEDICAL OFFICER'S OFFICE

D.G. CRAWSHAW, M.B.,Ch.B.,D.C.H.,D.P.H., Medical Officer of Health
(part-time with Cheshire C.C.)

C. BENNETT, D.M.A., Chief Clerk (part-time with Cheshire C.C.)
(1.2.4.5.6.)

MRS. J.M. COOKE, Clerk (part-time with Cheshire C.C.)

CHIEF PUBLIC HEALTH INSPECTOR'S DEPARTMENT

J. GASKELL Chief Public Health Inspector
(1.2.4.5.6.7.) Inspector under the Diseases of Animals Acts

R.E. PLATT Deputy Chief Public Health Inspector
(1.2.6.)

D.W. COOKE Public Health Inspector
(1.2.5.6.)

R.D. COLLIER Public Health Inspector
(1.2.5.)

E.H. PEET Public Health Inspector
(1.2.)

W.E. FEATHERSTONE Public Health Inspector
(1.2.5.)

F.E. WESTON Pupil Public Health Inspector
(3) Appointed Public Health Inspector 6.7.64.

B. JOYNSON Pupil Public Health Inspector

P.H. WILLIAMS Pupil Public Health Inspector - commenced
13.10.64.

T.C. SIMPSON Chief Administrative Assistant

R.J. BLEASE Clerk

MRS. J. ADAMS Shorthand Typist

MISS J. WARBURTON Shorthand Typist

1. Public Health Inspector's Certificate (Royal Society of Health and Public Health Inspectors' Examination Joint Board).
2. Meat and Food Inspector's Certificate of the Royal Society of Health.
3. Diploma of Public Health Inspectors Education Board for appointment as Public Health Inspector.
4. Certificate in Sanitary Science as applied to Buildings and Public Works of the Royal Society of Health.
5. Smoke Inspector's Certificate of the Royal Society of Health.
6. Testamur of the Institute of Public Cleansing.
7. Associate Membership Examination of the Institution of Public Health Engineers.

October, 1965.

To the Mayor, Aldermen and
Councillors of the Borough of Crewe,

I have the honour to present to you my report on the health of the Borough of Crewe for the year 1964.

VITAL STATISTICS

During 1964, 24 infants died before reaching the age of 1 year. This is an improvement on the high figures for 1962 and 1963 (29 and 27 respectively) but still compares very unfavourably with the 1957 - 61 average of 18 per year. The number of these deaths occurring in the first month - the neonatal deaths - a total of 14, shows a reversion to the customary proportion. A table is again included in the report showing the ages and causes of these deaths.

The total number of live births, and birth rate continues to rise as it has done over the past 9 years, of the 1,023 live births the illegitimate proportion, almost 9% (90 in number) is very high indeed. The illegitimacy proportion while showing a tendency to fluctuate considerably shows an average of less than 6% over the past 6 years. The live birth rate of 19.3 per 1,000 population is again higher than the England and Wales rate (18.4).

The total number of deaths, 616, shows a reduction on the 1963 and 1962 figures of 621 and 655 respectively. The 1951 - 60 average was 600. The figures are comparable as our population has remained static. The 1964 corrected death rate, 13.6 per 1,000 population is again high compared with the England and Wales figure of 11.3. 218 of these deaths occurred to persons aged 75 years or over. 20 deaths were attributed to accidents - 11 of these being motor vehicle accidents. Only 1 death was a suicide and of the 94 deaths attributed to cancer 23 were primary lung cancers. One death was ascribed to "pregnancy, childbirth or abortion".

INFECTIOUS DISEASES

The notified incidence of measles (524) was high bearing in mind the 2 year periodicity of epidemics this disease has shown

(notified incidence in preceeding years is as follows:- 1963 - 866, 1962 - 67, 1961 - 908, 1960 - 41, 1959 - 1,081.) The recent trials of measles immunisation show a promise of the eventual prevention of this disease. Whooping cough notifications - 309 also show a surprisingly high figure (incidence in preceeding years as follows:- 1963 - 12, 1962 - 5, 1961 - 26, 1960 - 145). Scarlet fever incidence appears similar to previous years. No case of diphtheria was notified.

A mild case of paralytic poliomyelitis occurred in the Borough in October. The patient, a girl of 10, resided in the north end of Crewe and attended a local school. She had a slight paresis of one arm, was nursed at home and made a full recovery.

In accordance with the advice of the Joint Committee on Vaccination and Immunisation as the occurrence of one case justifies the administration of a single dose of oral vaccine to all children living nearby or attending the same school, arrangements were made for this to be done. 850 children attended the school at a special morning session and each received a single dose of oral vaccine. I wish to thank Mr. F. Foden, Headmaster of Broad Street County Junior School and Miss I.M. Cotton, Headmistress of Broad Street County Infants' School for their co-operation which helped to secure the smooth running and success of the operation. No other case of poliomyelitis was notified. The recent outbreak of poliomyelitis in Blackburn would appear to warrant a review of immunisation advice. It would appear that the duration of immunity conferred by the Salk - injection type of vaccine is limited to a small number of years, consequently the younger members of the community should be advised to obtain a booster dose (or doses) of the Sabin oral vaccine to prolong and increase their immunity. Equally, if not more important is the apparent indifference of many parents to ensuring that their children are adequately protected against this crippling disease. My records show that little more than 50% of children born in the 5 years, 1960 - 1964 have received a full course of immunisation against poliomyelitis. The recent advice that oral poliomyelitis vaccine may be carried out simultaneously with other immunisation procedure, even in the baby, should help this situation in future years. At least one third of

all parents do not appear to be interested in ensuring that their children are protected, and consequently a situation could arise in which we experience a similar epidemic to the one in Blackburn with all its worry, suffering and expense.

During 1964 the Mass Miniature Radiograph Unit visited Crewe and Dr. Rimington's report is included in the body of the report. It is interesting that despite the Unit finding 36 new cases of tuberculosis the notified incidence of new cases rose very slightly, only 12 new notifications were received, consequently many of the new cases found by the Unit were not Borough residents. The deaths of 2 persons were ascribed to pulmonary tuberculosis.

RESIDENTIAL ACCOMMODATION AND HOSPITAL BEDS FOR THE ELDERLY

My staff and I are becoming increasingly involved in work connected with applications for county welfare residential accommodation. In this respect I have, of course, received the fullest co-operation from Mr. G. Evans, the County Welfare Office, and his staff. I look forward, however, to the time when an Area Welfare Office will be opened in Crewe so that local residents and their relatives can have their problems and applications dealt with directly by locally based members of the County Welfare Department.

During the year also innumerable requests and enquiries have been received concerning the possibility of my being able to secure the admission into hospital of chronically sick elderly patients. The organisation and control of such admissions is not, however, within my prerogative. General practitioners are responsible for applying for hospital beds for any of their patients they wish to be admitted and the appropriate hospital consultants control the flow and priorities of these admissions. My duties are confined to action under Section 47 of the National Assistance Act, 1948, for the compulsory admission of persons who are elderly, infirm, chronically sick, living in insanitary circumstances with no one to tend them and who are unwilling to enter hospital voluntarily, or to sick patients who are not registered with a general practitioner.

The chronic sick beds in the hospitals serving this area continued to be fully occupied during the year and although plans for the new District Hospital appear to show a reduction in geriatric accommodation I have been assured that such accommodation will be sufficient for all local needs. I have serious doubts that the plans will in fact achieve this. I have, however, been assured that once the new hospital is built no hospital beds in other units will be closed until the situation has been reviewed.

I remain,

Your obedient Servant,

D.G. CRAWSHAW.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA

GENERAL STATISTICS

Area (Census 1961)	4,386 acres
Population (Census 1961)	53,394
Registrar General's Estimated Population 1964	52,950
Number of Inhabited Houses (1st April, 1964)	17,240
Rateable Value (1st April, 1964)	£1,893,370
Sum Represented by Penny Rate	£7,542

VITAL STATISTICS FOR THE YEAR 1964

MOTHERS & INFANTS

LIVE BIRTHS

<u>Number</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
Legitimate	511	422	933
Illegitimate	39	51	90
Total	<u>550</u>	<u>473</u>	<u>1,023</u>

Rate per 1,000 population	19.32
Illegitimate Live Births (per cent. of total live births)	8.79%

STILLBIRTHS

<u>Number</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
Legitimate	14	9	23
Illegitimate	1	-	1
	<u>15</u>	<u>9</u>	<u>24</u>

Rate per 1,000 Total Live and Stillbirths	22.9
Total Live and Stillbirths	

<u>Males</u>	<u>Females</u>	<u>Total</u>
565	482	1,047

Infant Deaths (deaths under one year)

<u>Males</u>	<u>Females</u>	<u>Total</u>
12	12	24

INFANT MORTALITY RATES

Total infant deaths per 1,000 total live births	... ..	23.46
Legitimate infant deaths per 1,000 legitimate live births		22.58
Illegitimate infant deaths per 1,000 illegitimate live births		33.33

NEO-NATAL MORTALITY RATE

(Deaths under 4 weeks per 1,000 total live births)		13.68
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EARLY NEO-NATAL MORTALITY RATE

(Deaths under 1 week per 1,000 total live births)		11.73
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PERINATAL MORTALITY RATE

(stillbirths and deaths under 1 week combined per 1,000 total live and stillbirths)	34.38
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MATERNAL MORTALITY (including abortion)

Number of deaths	1
Rate per 1,000 total live and stillbirths	0.955

DEATHS - GENERAL

REGISTERED DEATHS

<u>Males</u>	<u>Females</u>	<u>Total</u>
374	242	616

DEATH RATE

(Deaths per 1,000 population)	11.63
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BIRTH RATES, DEATH RATES, ANALYSIS OF MORTALITY,
MATERNAL MORTALITY AND CASE RATES FOR CERTAIN
INFECTIOUS DISEASES IN THE YEAR 1964

(Provisional figures based on weekly and Quarterly returns)

								CREWE
								Rates per 1,000 of the Population
BIRTHS -								
Live	...	...	...	...	...	...	...	19.32
Still	...	...	...	...	...	...	...	0.45
DEATHS -								
All causes	...	...	...	...	...	...	...	11.63
Typhoid & Paratyphoid Fevers	...	...	...	...	...	...	...	-
Whooping Cough	...	...	...	...	...	...	...	-
Diphtheria	...	...	...	...	...	...	...	-
Tuberculosis (all forms)	...	...	...	...	...	...	...	0.037
Influenza	...	...	...	...	...	...	...	-
Smallpox	...	...	...	...	...	...	...	-
Acute Poliomyelitis, including Polioencephalitis	...	...	...	...	...	...	...	-
Pneumonia (including pneumonia of Newborn)	...	...	...	...	...	...	...	0.56
								Rates per 1,000 Live Births
Under 1 year of age (all causes)								23.46
Gastro-Enteritis, Colitis (except ulcerative) and Diarrhoea under 2 years of age								-
								Rates per 1,000 of the Population
NOTIFICATIONS (Corrected) -								
Typhoid Fever	...	...	...	...	...	...	...	-
Paratyphoid Fever	...	...	...	...	...	...	...	-
Meningococcal Infection	...	...	...	...	...	...	...	-
Scarlet Fever	...	...	...	...	...	...	...	0.79
Whooping Cough	...	...	...	...	...	...	...	5.83
Diphtheria	...	...	...	...	...	...	...	-
Erysipelas	...	...	...	...	...	...	...	0.018
Smallpox	...	...	...	...	...	...	...	-
Measles	...	...	...	...	...	...	...	9.89
Acute Poliomyelitis including Polioencephalitis	...	...	...	...	...	...	...
Paralytic	...	...	...	...	...	...	...	0.018
Non-Paralytic	...	...	...	...	...	...	...	-
Food Poisoning	...	...	...	...	...	...	...	0.018
Puerperal Pyrexia	...	...	...	...	...	...	...	-
Ophthalmia Neonatorum	...	...	...	...	...	...	...	-
Sonne Dysentery	...	...	...	...	...	...	...	-
Pneumonia	...	...	...	...	...	...	...	0.018

A dash (-) signifies that there were no deaths or notifications.

BIRTH RATES, DEATH RATES, ANALYSIS OF MORTALITY
MATERNAL MORTALITY, AND CASE RATES FOR CERTAIN
INFECTIOUS DISEASES
IN THE YEAR 1964

(Continued)

Comparison of certain rates with those for England and Wales.

COMPARABILITY FACTORS

	<u>Births</u>	<u>Deaths</u>	
	1.01	1.17	
		<u>Crewe</u>	<u>England and Wales</u>
Per 1,000 Home Population			
Live Births		19.3	
Live Births (corrected by comparability factor)		19.51	18.4
Deaths (all causes) actual ...		11.63	
Deaths (all causes) (corrected by comparability factor)		13.60	11.3
Per 1,000 total (Live and Still) Births			
Stillbirths		22.9	16.4
Per 1,000 Live Births			
Deaths under 1 year of age ...		23.46	20.0

COMPARATIVE STATISTICS 1954 - 1964

Year	Esti- mated Popu- lation	Live Births		Stillbirths		Deaths		Infant Deaths				Maternal Deaths			
		No.	Rate per 1,000 Esti- mated Popu- lation	No.	Rate per 1,000 Total Births	No.	Rate per 1,000 Esti- mated Popu- lation	Under 4 Weeks	4 Wks to 12 Mths	Total	Rate per 1,000 Live Births	Se- pis	Other	Total	Rate per 1,000 Total Births
1954	52,070	794	15.2	15	18.5	624	11.8	17	8	25	31.5	-	-	-	-
1955	51,580	718	13.9	20	27.1	574	11.1	16	9	25	34.8	-	-	-	-
1956	51,510	758	14.7	24	30.69	525	10.2	14	5	19	25.07	-	-	-	-
1957	51,490	785	15.2	20	24.84	576	11.2	14	7	21	26.8	-	-	-	-
1958	51,370	791	15.4	29	35.3	616	12.05	11	8	19	24.02	-	2	2	2.4
1959	51,200	841	16.4	17	19.8	599	11.7	11	4	15	17.8	-	1	1	1.2
1960	51,320	910	17.7	28	29.8	540	10.5	16	3	19	20.9	-	-	-	-
1961	53,730	919	17.1	21	22.3	702	13.1	12	5	17	18.5	-	-	-	-
1962	53,580	958	17.8	15	15.4	655	12.22	8	21	29	30.27	-	1	1	1.02
1963	53,180	995	18.7	26	19.2	621	11.67	17	10	27	27.13	-	1	1	0.979
1964	52,950	1023	19.3	24	22.9	616	11.63	14	10	24	23.46	-	1	1	0.955

DEATHS OF CREWE RESIDENTS DURING THE YEAR 1964

CAUSE OF DEATH	ALL	Under 4 weeks	1 month to 1 year	1-4 years	5-9 years	10-14 years	15-24 years	25-44 years	45-64 years	65-74 years	75+
1. Tuberculosis, Respiratory	2	-	-	-	-	-	-	1	-	1	-
9. Other Infective & Parasitic Diseases	2	-	1	1	-	-	-	-	-	-	-
10. Malignant Neoplasm, Stomach	15	-	-	-	-	-	-	-	5	7	3
11. Malignant Neoplasm, Lung, Bronchus	23	-	-	-	-	-	-	2	14	5	2
12. Malignant Neoplasm, Breast	6	-	-	-	-	-	-	-	4	2	-
13. Malignant Neoplasm, Uterus	5	-	-	-	-	-	-	1	3	-	1
14. Other Malignant and Lymphatic Neoplasms	43	-	-	-	-	-	-	3	20	11	9
15. Leukaemia, Aleukaemia	2	-	-	-	1	-	1	-	-	-	-
16. Diabetes	4	-	-	-	-	-	-	1	-	2	1
17. Vascular Lesions of Nervous System	109	-	-	-	-	1	1	2	28	26	51
18. Coronary Disease, Angina	122	-	-	-	-	-	-	4	41	43	34
19. Hypertension with Heart Disease	9	-	-	-	-	-	-	-	4	4	1
20. Other Heart Disease	83	-	-	-	-	-	1	2	11	28	41
21. Other Circulatory Diseases	5	-	-	-	-	-	-	-	2	1	2
23. Pneumonia	30	-	3	1	-	-	1	-	5	7	13
Carried Forward	460	-	4	2	1	1	4	16	137	137	158

DEATHS OF CREWE RESIDENTS DURING THE YEAR 1964

-13-

CAUSE OF DEATH	ALL	Under 4 weeks	1 month to 1 year	1-4 years	5-9 years	10-14 years	15-24 years	25-44 years	45-64 years	65-74 years	75 + years
BROUGHT FORWARD	460	-	4	2	1	1	4	16	137	137	158
24. Bronchitis	36	-	2	-	-	-	-	-	12	13	9
25. Other Diseases of Respiratory System	2	-	-	-	-	-	-	-	2	-	-
26. Ulcer of Stomach and Duodenum	6	-	-	-	-	-	-	1	-	3	2
28. Nephritis and Nephrosis	10	-	-	-	-	-	-	1	2	2	5
29. Hyperplasia of Prostate	1	-	-	-	-	-	-	-	-	-	1
30. Pregnancy, Childbirth, Abortion	1	-	-	-	-	-	1	-	-	-	-
31. Congenital Malformations	5	4	1	-	-	-	-	-	-	-	-
32. Other Defined and Ill-Defined Diseases	74	10	1	-	-	1	1	2	7	12	40
33. Motor Vehicle Accidents	11	-	-	-	-	-	-	5	4	1	1
34. All Other Accidents	9	-	2	-	1	-	-	-	2	2	2
35. Suicide	1	-	-	-	-	-	-	-	1	-	-
Total All Causes	616	14	10	2	2	2	6	25	167	170	218

DEATHS OF CREWE INFANTS UNDER 1 YEAR OF AGE DURING 1964

CAUSE OF DEATH	Under 1 Day	DAYS										MONTHS										ALL
		1	2	3	4	5	6	7	14	21 to 28	1	2	3	4	5	6	7	8	9	10	11 to 12	
Other Infective & Parasitic Diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Pneumonia	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	-	3
Bronchitis	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	2
Congenital Malformations	1	-	-	-	-	1	-	1	1	-	-	-	-	-	1	-	-	-	-	-	-	5
Other Defined & Ill Defined Diseases	5	3	-	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	11
All Other Accidents	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	2
TOTAL	6	3	-	2	-	1	-	1	1	-	2	2	2	-	1	1	-	-	1	1	-	24

NOTIFIED INFECTIOUS DISEASES 1964 : Civilian (Corrected in cases of revised diagnosis)

	Under 1 year	1-2 years	2-3 years	3-4 years	4-5 years	5-10 years	10-15 years	15-20 years	20-25 years	25-35 years	35-45 years	45-65 years	Over 65 years	Total
Scarlet Fever	-	3	2	2	5	24	5	1	-	-	-	-	-	42
Whooping Cough	22	33	35	34	44	126	11	1	-	1	-	2	-	309
Measles	27	63	61	73	78	211	5	2	2	1	1	-	-	524
Erysipelas	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Food Poisoning	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Acute Pneumonia	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Acute Poliomyelitis	-	-	-	-	-	1	-	-	-	-	-	-	-	1
TOTAL	49	99	98	109	127	362	21	4	2	2	1	5	-	879

T U B E R C U L O S I S

Particulars of New Cases of Tuberculosis and
Deaths During 1964

Age Period	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M	F	M	F	M	F	M	F
Under 1 year	-	-	-	-	-	-	-	-
1 year - 4 years	-	-	-	-	-	-	-	-
5 years - 9 years	-	-	-	-	-	-	-	-
10 years - 14 years	-	-	-	-	-	-	-	-
15 years - 19 years	-	-	-	-	-	-	-	-
20 years - 24 years	-	-	-	-	-	-	-	-
25 years - 34 years	-	1	-	-	1	-	-	-
35 years - 44 years	3	1	-	1	-	-	-	-
45 years - 54 years	5	1	-	-	-	-	-	-
55 years - 64 years	1	-	-	-	2	1	-	-
65+	-	-	-	-	2	-	-	-
Total	9	3	-	1	5	1	-	-

Particulars of New Cases and Deaths
During the Last Five Years

Year	New Cases		Deaths	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary
1960	27	1	5	-
1961	16	3	6	-
1962	19	2	7	-
1963	8	3	2	-
1964	12	1	6	-

The following is a summary of the four quarterly returns which are rendered to the County Medical Officer, and which indicate the number of cases remaining on the register at 31st December, 1964.

	Pulmonary		Non-Pulmonary	
	M	F	M	F
No. of cases on Register of Notifications on 1st Jan. 1964	116	73	9	5
No. of cases notified for the first time during the year	9	3	-	1
No. of cases transferred from other districts	1	2	-	-
No. of cases restored to Register	-	-	-	-
No. of cases removed from Register during the year on account of having				
(a) Recovered	13	11	-	-
(b) Removed from district	-	-	-	-
(c) Died	5	1	-	-
(d) Diagnosis not established	-	-	-	-
(e) Lost sight of	1	1	-	-
No. of cases remaining on the Register on 31st December, 1964	107	65	9	6

Of the 6 cases listed under (c) above, only one died from tuberculosis and 4 from other primary causes.

VACCINATION AND IMMUNISATION

Vaccination Against Smallpox

The number of vaccinations reported to me during the year was 381, showing an increase of 209 on the previous year.

	Year of Birth					Total
	1964	1963	1962-1960	1959-1950	1949 or earlier	
Vaccinated	73	160	50	11	32	326
Re-Vaccinated	-	-	2	4	49	55

Supplementary Information Regarding Children Vaccinated Under 1 Year of Age

	0 - 3 mths	3 - 6 mths	6 - 9 mths	9 - 12 mths
No. Vaccinated	28	42	11	21

Diphtheria Immunisation

During the year cards received from Medical Practitioners showed that 624 children were immunised against diphtheria. In addition, 233 children received a boosting dose to improve their immunity. The corresponding figures for 1963 were 623 and 299.

Number of children who had completed a full course of Immunisation between 1st January, 1950 and 31st December, 1964 (According to Health Department Records)

	1964	1960-1963	1955-1959	1950-1954	Total
No. of children in Local Health Authority area on 31.12.64. who had completed course (primary or booster) in the period (1) 1960 - 1964	185	2,368	1,396	219	4,168
(11) 1959 - 1950	-	-	1,684	2,096	3,780
TOTALS	185	2,368	3,080	2,315	7,948
Estimated child population 1964	4,892		7,905		

The estimated percentage of child population (0-15 years) immunised at 31.12.64. (according to records held in the Divisional Office) is 62%

No case of diphtheria was notified during 1964 and it is now 14 years since a case of diphtheria has been notified in the Borough.

Number of children who completed a course of inoculation with pertussis vaccines, (including alum precipitated vaccines and vaccines combined with diphtheria prophylactic) during 1964

Children Born in Year							
1964	1963	1962	1961	1960	1955-1959	1950-1954	Total
179	322	48	20	6	18	3	596

Vaccination Against Poliomyelitis during 1964
(According to records received)

PART I - Primary

Age Group	Number of persons who have received:		Total
	Second injection of Salk Vaccine or third injection of quadruple vaccine	Third dose of Oral vaccine	
Children born in 1964	46	60	106
Children born in 1963	55	280	335
Children born in 1962	15	74	89
Children born in 1961	3	24	27
Children and young persons born in years 1943-1960	10	36	46
Young persons born in years 1933-1942	6	5	11
Others	12	6	18
Totals	147	485	632

PART II - Boosters

Number of persons given 3rd injection of Salk Vaccine or 4th injection of quadruple vaccine	13
Number of persons given 4th injection of Salk Vaccine or 5th injection of quadruple vaccine	1
Number of persons given reinforcing dose of oral vaccine after:-	
(1) 2 Salk doses	4
(2) 3 Salk doses or 3 Oral doses or 2 Salk doses plus 2 Oral doses	279

MEDICAL EXAMINATIONS

During the year, 216 persons were medically examined. Of these 89 were examined in conjunction with the Corporation's Superannuation and Sickness Pay Schemes, 113 were County Staff or persons seeking entry to a Training College, and 14 were of persons applying for a Taxi Driver's Licence.

MORTUARY FACILITIES

The Corporation Mortuary was closed on 1st January, 1962 and the arrangements made with the South Cheshire Hospital Management Committee have continued entirely satisfactorily. During the year the Corporation paid fees in respect of 58 bodies received at the Crewe Memorial Hospital Mortuary.

FOOD POISONING

1 case of food poisoning was notified during the year.

SECTION 47 NATIONAL ASSISTANCE ACT 1948

Formal action was taken in respect of one elderly female during the year.

MASS RADIOGRAPHY SURVEY

During 1964 a survey was carried out by No. 3 Mass Radiography Unit of the Manchester Regional Hospital Board and the Report of the Survey is as follows:-

MANCHESTER REGIONAL HOSPITAL BOARD

No. 3 Mass Radiography Unit,
St. Thomas' Hospital,
STOCKPORT.

REPORT ON THE SURVEY OF CREWE, 1964

The Unit visited Crewe and the neighbouring village of Haslington between the 13th August and the 14th December, 1964. During this period the Unit set up at the following locations:-

Calmic Ltd.
County Clothes Ltd.
Midland Rollmakers Ltd.
Rolls Royce Ltd.
The Car Park, Town Centre.
Middlewich Street Housing Estate
Wistaston Green Housing Estate
C. Doody & Son Ltd.
C.W.S. Clothing Factory
Yoxall Institute, Haslington
Smethurst and Holden Ltd.
Parke Davis & Co. Ltd.
Cheshire County Constabulary Headquarters
Crosville Motor Services Ltd.
British Rail Locomotive Works
British Rail Signals and Telecommunications Department

A caravan office was kindly loaned to the Unit by Crewe Corporation. This set up on two occasions in the Car Park in the town centre, for public and industrial sessions, and also on the Middlewich Street and Wistaston Green Housing Estates for the residents. Another public centre was established at the Yoxall Institute for the residents of Haslington. The employees of many other firms attended the Unit at one or other of the locations mentioned.

The public programme included daytime and evening sessions on various days of the week, to give the maximum amount of choice. Publicity was organised in conjunction with the Medical Officer of Health. Leaflets were distributed to households, announcements were published in the local papers and posters were exhibited in many of the shops in the town.

The present report is directly comparable to the report on the visit made in 1960. Figures relating to the visit to the Training College, Crewe, made earlier in the year, have been excluded and, in accordance with the Board's policy, no arrangements were made for the examination of school children or expectant mothers.

The results of the survey are summarised in the following tables. Table I was compiled by the General Register Office from a ten per cent sample of the record cards completed by the Unit during the survey. Whilst not being strictly accurate in detail, especially in the very small groups, the figures give a reasonably correct indication of the age and sex distribution of the examinees. The figures in the remaining tables are strictly accurate, having been obtained from the individual record cards.

TABLE I Persons Examined	15-19		20-24		25-34		35-44		45-54		55-59		60-64		65 plus		All Ages		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
Factories/Offices	1080	1120	1240	560	2350	620	2940	490	2550	400	850	130	680	50	40	-	11730	3370	15100
General Public	120	70	60	170	240	440	260	670	170	360	120	180	40	150	170	100	1180	2140	3320
Total	1200	1190	1300	730	2590	1060	3200	1160	2720	760	970	310	720	200	210	100	12910	5510	18420
TABLE II Diagnosis Tuberculous Cases																			
Tuberculosis - healed																			
" requiring occas'l clinic supervision	-	1	1	-	4	1	5	-	11	3	4	2	7	-	3	-	35	7	42
" requiring treatment or close super'n	1	-			2	1	7	4	13	-	2	-	4	-	2	-	31 (2.4)	5 (0.9)	36 (1.9)
TABLE III Types of Examinee found with Tuberculosis requiring treatment or close supervision																			
Factories/Offices	1	-			2	-	6	1	13	-	2	-	4	-			28	1	29 (1.9)
General Public					-	1	1	3							2	-	3	4	7 (2.1)
Total	1	-			2	1	7	4	13	-	2	-	4	-	2	-	31	5	36

The figures shown in brackets represent the incidence rate per thousand persons examined of pulmonary tuberculosis requiring treatment.

TABLE IV Non-Tuberculous Cases	15-19		20-24		25-34		35-44		45-54		55-59		60-64		65 plus		All Ages	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	Total
Malignant neoplasms					1	-	4	-	3	-	1	1	1	1	2	-	11	12
Non-malignant neoplasms	1	-			1	1	1	-		-							2	3
Lymphadenopathies	-	1	2	1	-	-	1	1	1	-							1	4
Sarcoids																	2	4
Congenital cardiac abnormalities	1	1			2	-	1	1	2	1	1	1	1	1	1	1	1	5
Acquired cardiac abnormalities					1	-	2	2	3	2	3	3	1	4	5	4	12	23
Pneumoconiosis without P.M.F.					1	-	1	-	1	-	1	-			5	-	11	5
Congenital abnormalities of bony thorax						-			2	-					3	-	3	3
Acquired abnormalities of bony thorax	1	-	1	-	1			-	2	1	1	-		1	7	1	1	8
Bacterial and virus infections of lungs	1	1	4	-	6	2	12	3	2	2	1	1	3	1	4	2	12	52
Bronchiectasis	3	1	1	-	1		1	3	1	1					1	-	7	12
Emphysema					1		1	-	8	-	1	1	2	4	1	2	3	3
Fibrosis					3	-	3	1			9				26	8	2	34
Pleural effusion					1	-	1	-	2	-	4	-	3	-	2	-	1	2
Pleural thickening					1	-	1	1	1	-	-	1	-	1	13	1	14	8
Abnormalities of diaphragm					2	-	1	1	1	-	1	1	1	1	4	4	4	8
Miscellaneous abnormalities	1	-					2	1	1	3				1	5	6	11	11
Total	8	4	8	1	15	3	23	14	40	9	28	7	14	8	10	11	146	203
Failed to attend for further investigations					-	3					1	-			-	1	1	5

COMMENTS

1. The number of persons examined shows some increase over the 1960 figures, both from industry and the general public. The use of the caravan office on the large housing estates was very successful as the sessions were well attended. It was also a great advantage to site the Unit with the caravan in a car park in the town centre, close to the main shopping centre and bus station.
2. The number of new cases of pulmonary tuberculosis requiring treatment or close observation rose to thirty-six from the thirty-one discovered in 1960. The incidence rate rose to 1.9 per thousand examined which is a fairly high rate in these days.
3. Twelve cases of malignant neoplasms were discovered. Eleven of these were bronchial carcinomata and occurred in tobacco consumers, all moderate to heavy cigarette smokers apart from one pipe smoker.
4. All the abnormal cases were referred to their own doctors, the majority for further investigation at the Chest Clinic or Hospital. Thanks should be extended to all the physicians and surgeons concerned and particularly to Dr. A. Fleming and his chest team for their help and co-operation in dealing with the majority of these new cases.

In conclusion, the Unit would like to place on record its thanks to the Medical Officer of Health and his staff for their assistance during the Survey, and to the Locomotive Works Manager and the Area Medical Officers for their active co-operation in all matters including the use of premises for the examination of employees from firms in the vicinity.

Signed: J. RIMINGTON, M.B.,Ch.B.
Medical Director.

H. WINSTANLEY.
Organising Secretary.

ANNUAL REPORT OF
THE CHIEF PUBLIC HEALTH INSPECTOR
FOR THE YEAR 1964

Chief Public Health Inspector's
Department,
Municipal Buildings,
C R E W E.

22nd November, 1965.

To the Mayor, Aldermen and
Councillors of the Borough
of Crewe.

Mr. Mayor, Ladies and Gentlemen,

I have the honour to present my seventeenth annual report on the work of the public health inspectorate.

As in previous years steady progress has been made with slum clearance 116 families being rehoused and 167 houses demolished. Since 1955 clearance procedure has been initiated in respect of 991 houses, 794 families rehoused and 694 houses demolished.

Fifty-five applications for improvement grants were received and approved as compared with forty-nine in 1963. In all some 360 applications have been approved and the work of modernising 315 houses had been completed at the year end. The total cost of bringing these dwellings up to modern standards will be £75,272 of which £54,031 will rank for grant. Nearly all the applications have been from owner occupiers and whilst they are to be commended there is a great need for landlords of tenanted properties to make greater use of these beneficial provisions. There are still many old houses which, with a useful life, are capable of providing satisfactory homes if provided with modern amenities. Improvement grants give financial help to the owners of these dwellings for the installation of facilities needed to raise the standard of housing or for the conversion of larger properties into two or more separate dwellings. The grants generally provide for amounts up to one half of the approved cost of the work being given by the local authority subject to certain maximums and the acceptance of certain simple conditions.

During the year the Offices, Shops and Railway Premises Act 1963 came into operation. The Act makes provision for the safety health and welfare of persons employed in shops, offices and railway premises. The requirements follow closely those of the Factories Act and include provisions relating to cleanliness, overcrowding, temperature, ventilation, lighting, sanitary conveniences, washing facilities, drinking water, seats, safety of machinery, first aid and fire precautions. Whilst

enforcement of the provisions of the Act is divided among a number of authorities in most premises its general requirements are enforced by local authorities who are already responsible for inspecting many such premises under other legislation dealing with public health and shop closing hours. By the end of the year in the borough 573 premises had been registered in which it was noted that 3,673 workers were employed. The public health inspectors paid 380 visits, made 287 general inspections of premises, found 787 contraventions and issued the necessary notices requesting compliance with the requirements of the Act.

The food and drugs section of the report reveals an increasing number of consumer complaints regarding the discovery of foreign bodies in food. This increase follows the national trend. The number of incidents of this character is disturbing in itself but the problem must be even more acute since not every case is reported to the local authority. Although the number of cases reported in relation to the quantity of food sold is relatively small it is apparent that much greater care is needed in the food manufacturing trades.

The department continued to co-operate with the Ministry of Technology (formerly the Department of Scientific and Industrial Research) in recording smoke and sulphur dioxide concentrations, and in this respect was fortunate in receiving the continued assistance of the staff of British Railways (Midland Region) Laboratory at Crewe.

In conclusion, I wish to express my thanks to His Worship the Mayor, the Chairman and Members of the Health Committee, members of the staff and to other officers and their staffs for their co-operation.

I have the honour to be,

Your obedient servant,

J. GASKELL,

Chief Public Health Inspector.

SANITARY CIRCUMSTANCES OF THE AREA

PUBLIC CLEANSING

The removal of household and trade refuse is based on a weekly collection service and with the exception of holiday periods, this frequency of collection was maintained generally throughout the Borough.

The Cleansing Department operates a Refuse Disposal Plant and has a separate Garage and Workshop.

Eleven vehicles (including two spare vehicles) are employed on the collection of household and trade refuse and nightsoil, in addition to two vehicles used in connection with refuse disposal.

Household refuse collected	...	...	...	12,909 tons
Trade refuse collected...	...	...	...	1,845 tons
Total refuse collected by the Department during the year				<u>14,754 tons</u>

2,637 tons of shop and factory refuse were also brought to the Refuse Disposal Works for disposal, making a total of 17,391 tons of refuse dealt with during the year. 64.3% of the total refuse passed through the works while the remainder was disposed of by controlled tipping.

The estimated amount of nightsoil collected during the year was 156 tons.

A separate Annual Report is issued for the Public Cleansing services in the Borough.

SANITARY ACCOMMODATION

There are still a number of privy pails in the Borough, situated in the present unsewered northern area of the town.

WATER SUPPLY

The water supply to the district is provided by the Mid and South East Cheshire Water Board. The water is not plumbo-solvent and all dwelling houses are supplied direct from the mains.

Mr. Delwyn Davies, B.Sc.(Eng) M.I.C.E., M.I.W.E., A.M.B.I.M., Chief Officer of the Board has supplied the following information relating to the supply.

During 1964, 30 samples were taken by the Water Board in Crewe. On examination 4 samples proved to be unsatisfactory.

The water supply has been satisfactory in quantity but trouble has been experienced with loosened deposits from the mains and with crustaceans in a few places.

One or two local instances of contamination have been cleared by flushing.

Bacteriological examinations of raw and treated water are made weekly. Without exception the water leaving the works has been thoroughly satisfactory.

A copy of a typical chemical analysis of the water delivered to Crewe from Hurleston is given below:

Source of supply to consumers	R. Dee Hurleston Works
Daily volume in million gallons	5
No. of samples and period over which they have been collected	46 in twelve months (November 1962 - October 1963 inclusive)
Colour	from less than 5 Hazen to 10
Reaction pH	from 7.1 to 7.8
Electrical conductivity at 25° umhos	from 184 to 323
Hardness as Ca CO ₃	
Total	from 70 to 134 p.p.m.
Non-carbonate	from 34 to 70 p.p.m.
Alkalinity as Ca CO ₃	from 36 to 73 p.p.m.
Chlorides expressed as chlorine	from 16.3 to 26.8 p.p.m.
Ammoniacal nitrogen	from 0.01 to 0.02 p.p.m.
Albuminoid nitrogen	from 0.03 to 0.11 p.p.m.
Nitrate nitrogen	from 0.1 to 1.9 p.p.m.
Oxygen absorbed from permanganate in 4 hrs. at 27°C	from 0.40 to 0.99 p.p.m.
Iron	from 0.01 to 0.06 p.p.m.
Manganese	nil to 0.01 p.p.m.
Aluminium	from 0.01 to 0.17 p.p.m.
Residual chlorine	from 0.1 to 0.4 p.p.m.

In addition to the samples mentioned above, 32 samples of water were also submitted by my department for bacteriological and chemical examination and all but 4 proved satisfactory.

Immediate notification of unsatisfactory samples was made to the Water Board and further samples were satisfactory.

INSPECTIONS

Nature of Inspections made	Num- ber	Number of Notices served		Result of Notices served		Pro- secu- tions
		Infor- mal	Stat- utory	Com- plied with	Remain- ing in hand	
Dwellinghouses (P.H.Act)	357	173	48	159	62	-
Dwellinghouses (Hsg.Act)	679	-	-	-	-	-
Rapid Housing Survey	37	-	-	-	-	-
Improvement Grants	428	-	-	-	-	-
Rent Act Certificates	16	-	-	-	-	-
Back to back houses	-	-	-	-	-	-
Verminous houses	79	-	-	-	-	-
Tents, Vans and Sheds	51	1	-	1	-	-
Ashpails	53	1	-	1	-	-
Yards and passages	30	-	-	-	-	-
Drains and sewers	2307	-	641	641	-	-
Ditches and watercourses	42	1	-	1	-	-
Offensive accumulations	56	-	-	-	-	-
Keeping of animals	15	-	-	-	-	-
Offensive trades	25	-	-	-	-	-
Places where food is prepared or sold	839	117	-	27	90	1
Bakehouses	32	-	-	-	-	-
Dairies and Milk shops	12	-	-	-	-	-
Factories -						
with mechanical power	40	6	-	6	-	-
with no mechanical power	6	-	-	-	-	-
Workplaces	3	-	-	-	-	-
Outworkers	2	-	-	-	-	-
Common lodging houses	77	-	-	-	-	-
Shops under Shops Act	107	84	-	5	79	-
O.S.R.P. Act	380	332	-	58	274	-
Clean Air Act	796	-	-	-	-	-
Infectious Diseases -						
(Enquiries and revisits)	36	-	-	-	-	-
Houses re overcrowding	10	-	-	-	-	-
Milk samples	185	-	-	-	-	-
(Bacteriological exam.)						
Ice cream samples	72	-	-	-	-	-
Water supply and samples	90	-	-	-	-	-
Food and Drugs Act -						
(incl. samples)	202	-	-	-	-	11
Applicants for Corporation houses	292	-	-	-	-	-
Rodent Control	52	-	-	-	-	-
Miscellaneous	1375	-	-	-	-	3
Re-inspections	1140	-	-	-	-	-
TOTALS	9923	715	689	899	505	15

INFECTIOUS DISEASE AND DISINFECTION

Disinfection of premises is carried out by formaldehyde spray or formalin vapour generators. Infected bedding and other articles are disinfected by steam or formalin as the circumstances demand.

Number of premises visited where a notifiable disease
has occurred 36

Number of rooms disinfected... .. -

Number of cases where bedding, etc. was disinfected
by steam at request of owners -

Number of Library Books disinfected -

(a) from Public Library 25
(b) from Private Libraries 1 ... 26

DISINFESTATION

The following table shows the number of premises treated during 1964.

	Number found to be infested		Number of Premises Disinfested
	Premises	Rooms	
Council Houses	8	29	8
Other Houses	19	76	19
Cases confirmed after complaint of infestation	5	-	-
Cases found by Public Health Inspectors	22	-	-
Houses disinfested by Corporation... ..	-	-	27
Houses disinfested by Contractors... ..	-	-	-

The work of disinfestation was carried out by the use of D.D.T. and patent fumigant solutions.

In addition to the premises listed above, 65 houses were treated for infestations of beetles and 178 houses for ants.

SWIMMING BATHS

The only Public Swimming Baths in the Borough are owned by the Corporation and contain two swimming pools, slipper or private wash baths and various other amenities.

During the year, 26 samples of bath water were submitted for bacteriological and chemical examination and 1 sample proved unsatisfactory, but subsequent samples proved satisfactory.

OFFENSIVE TRADES

The following offensive trades are carried on in the Borough.

Rag and Bone Dealers	...	...	...	...	3
Gut Scrapers	...	...	...	...	1
Bone Boiler and Fat Extractor...	...	...	...	...	1

In addition to the above, 35 persons are registered as Dealers in Old Metal.

RAG FLOCK

Number of licensed premises used for the manufacture of, or storage of Rag Flock -

Number of registered premises where filling materials are used 1

COMMON LODGING HOUSES

There are two Common Lodging Houses in the Borough, situated at 175 and 177 Market Street and the following table shows the number of beds available at each house.

Situation				No. of Beds	Accommodation available for
(1)	175 Market Street	...	...	10	Male and female
(2)	177 Market Street	...	...	26	Male
Total number of beds				36	

The number of persons who used the lodging houses during the year is given below with comparative figures for the two preceding year.

				<u>Adults</u>		<u>Children</u>	
				<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
1964	...	...	...	2,120	491	-	-
1963	...	...	...	4,643	387	-	-
1962	...	...	...	4,886	836	-	-

HOUSING STATISTICS

Number of New Houses erected during the year:

(1)	By the Local Authority	...	...	...	...	118
(2)	By other authorities	...	...	...	...	2
(3)	By other bodies or persons	...	...	...	...	159

1. Inspection of Dwelling Houses during the year:

(1) (a) Total number of houses inspected for housing defects (under Public Health Act or Housing Act) -

(i)	On General Inspection	...	...	...	173
(ii)	Slum Clearance	...	...	...	234
Total					407

(b) Number of inspections made for the purpose -

(i)	General inspections	...	...	...	357
(ii)	Slum Clearance	...	...	...	679
Total					1,036

(2) (a) Number of dwelling houses (included under the sub-heading (1) above) which were inspected and recorded under the Housing Consolidation Regulations, 1925 -

(i)	On General Inspections	...	...	...	-
(ii)	Slum Clearance	...	...	...	234
Total					234

(b) Number of inspections made for the purpose -

(i)	General inspections	...	...	...	-
(ii)	Slum Clearance	...	...	...	679
Total					679

(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for habitation -

(i)	On General Inspections	...	...	...	-
(ii)	Slum Clearance	...	...	...	234
Total					234

Housing Statistics cont.

(4)	Number of dwelling houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	173
2.	<u>Remedy of Defects during the year without service of Formal Notices</u>	
	Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their officers	118
3.	<u>Action under Statutory Powers during the Year</u>	
(a)	Proceedings under Section 9 and 10 of the Housing Act 1957 -	
(1)	Number of dwelling houses in respect of which notices were served requiring repairs	Nil
(2)	Number of dwelling houses which were rendered fit after service of formal notices -	
(a)	By owners	Nil
(b)	By Local Authority in default of owners	Nil
(b)	Proceedings under Public Health Acts -	
(1)	Number of dwelling houses in respect of which notices were served requiring defects to be remedied	48
(2)	Number of dwelling houses in which defects were remedied after service of formal notices -	
(a)	By owners	39
(b)	By Local Authority in default of owners	2
(c)	Proceedings under Sections 16 and 17 of the Housing Act, 1957 -	
(1)	Number of dwelling houses in respect of which demolition orders were made ...	2
(2)	Number of dwelling houses demolished in pursuance of demolition orders... ..	-

Housing Statistics cont.

3.	(c)	(3)	Number of undertaking to carry out works in lieu of demolition accepted by the Council	-
		(4)	Number of dwelling houses in respect of which closing orders were made	1
4.	<u>Housing Act 1957 - Part IV - Overcrowding</u>			
	(a)	(1)	Number of dwellings overcrowded at end of year	3
		(2)	Number of families dwelling therein... ..	3
		(3)	Number of persons dwelling therein	35
	(b)		Number of new cases of overcrowding reported during the year	-
	(c)	(1)	Number of cases of overcrowding relieved during the year	1
		(2)	Number of persons concerned in such cases	5
	(d)		Particulars of any cases in which dwelling houses have again become overcrowded after the local authority have taken steps for the abatement of overcrowding	-

HOUSING CLEARANCE PROGRAMME

The following table shows the progress made since 1955 to the end of the year with the Slum Clearance Programmes

Description of Property	No. of houses in Area	Date of Representation Report	Date of Confirmation of Order	No. of families rehoused 3/11/55 - 31/12/64	No. of houses demolished to 31/12/64
1. CLEARANCE AREAS: West Ward No. 2 (Naylor Street) Compulsory Purchase Order 1956 West Ward No. 3 (Stafford Street) Clearance Order 1957 Central Ward No. 4 (Foundry Street) Clearance Order 1957 North Ward No. 8 (Earle Street) Clearance Order 1957 North Ward No. 9 (Martin Street) Clearance Order, 1957 South Ward No. 2 (Railway Street) Clearance Order, 1957 West Ward No. 4 (Stafford Street and Henshaw Street) Clearance Order 1958	87 8 15 7 15 18 10	5/6/56 5/6/56 4/6/57 4/6/57 13/8/57 13/8/57 4/6/58	5/4/57 19/6/57 11/3/58 19/11/57 8/7/57 22/9/58 9/7/59	79 7 13 7 13 18 10	87 8 15 7 15 18 9
c/f	160	-	-	147	159

HOUSING CLEARANCE PROGRAMME, Cont.

Description of Property	No. of houses in Area	Date of Representation Report	Date of Confirmation of Order	No. of families rehoused 3/11/55 - 31/12/64	No. of houses demolished to 31/12/64
b/f <u>Clearance areas, cont.</u>	160			147	159
South Ward No. 3 (Mill Street) Clearance Order 1958	6	12/8/58	8/5/59	4	6
Central Ward No. 5 (Lockitt Street) Clearance Order 1958	15	12/8/58	19/5/59	14	15
North Ward No. 10 (Davenport Street) Clearance Order 1958	14	12/8/58	8/4/59	13	14
North Ward No. 11 (Broad Street) Clearance Order 1958	12	12/8/58	14/4/59	12	12
North Ward No. 12 (Broughton Road) Clearance Order 1958	3	12/8/58	8/4/59	3	3
North Ward No. 13 (Sydney Road) Clearance Order 1958	2	7/10/58	8/4/59	3	2
West Ward No. 5 (Alexandra Street) Compulsory Purchase Order 1959	85	7/4/59	12/9/60	85	85
West Ward No. 6 (Orchard Place) Clearance Order 1959	20	2/6/59	21/7/60	19	20
c/f	317	-	-	300	316

HOUSING CLEARANCE PROGRAMME, Cont.

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Description of Property	No. of houses in Area	Date of Representation Report	Date of Confirmation of Order	No. of families rehoused 3/11/55 - 31/12/64	No. of houses demolished to 31/12/64
<p align="center">b/f</p> <p><u>Clearance areas, cont.</u></p>	317			300	316
<p>Central Ward No. 6 (Liverpool Street/ Forge Street) Compulsory Purchase Order 1961</p>	186	12/4/60	5/10/61	171	186
<p>Central Ward No. 7 (Bank Street/ Lockitt Street) Compulsory Purchase Order 1961</p>	45	4/8/61	5/4/62	39	45
<p>South Ward No. 4 (Mill Street) Compulsory Purchase Order 1962</p>	2	10/4/62	30/10/62	2	2
<p>Central Ward No. 10 (Chester Street West) Clearance Order 1962</p>	2	10/4/62	2/11/62	2	-
<p>Central Ward No. 11 (John Street) Clearance Order 1962</p>	2	10/4/62	4/1/63	2	-
<p>West Central Ward No. 1 (Peel Street) Clearance Order 1962</p>	8	10/4/62	17/1/63	7	4
<p>West Central Ward No. 2 (Dale Street) Clearance Order 1962</p>	6	10/4/62	2/11/62	6	6
<p>West Central Ward No. 3 (West Street/ Stafford Street) Compulsory Purchase Order 1962</p>	65	10/4/62	9/4/63	40	-
<p align="center">c/f</p>	633	-	-	569	559

HOUSING CLEARANCE PROGRAMME, Cont.

Description of Property	No. of houses in Area	Date of Representation or Report	Date of Confirmation of Order	No. of families rehoused 3/11/55 - 31/12/64	No. of houses demolished to 31/12/64
b/f	633			569	559
<u>Clearance areas, cont.</u>					
North East Ward No. 1 (Chapel Lane) Clearance Order, 1962	10	10/4/62	18/10/62	7	-
Central Ward No. 12 (Oakley Street/Beech Street) Compulsory Purchase Order, 1963	62	9/4/63	12/5/64	39	-
Central Ward No. 15 (Oakley Street/Beech Street) Clearance Order 1963	19	9/4/63	12/5/64	4	-
West Ward No. 7 (Collins Street) Clearance Order 1963	25	12/2/63	8/11/63	24	-
South East Ward No. 1 (Bridge Street) Compulsory Purchase Order 1963	28	12/3/63	14/1/64	16	-
West Central Ward No. 5 (Derby Street/Grosvenor Street) Compulsory Purchase Order 1963	54	12/11/63	-	-	-
2. <u>AREAS DEALT WITH INFORMALLY WITH THE APPROVAL OF THE MINISTRY OF HOUSING AND LOCAL GOVERNMENT</u>					
Park Place	67	19/4/56	9/7/57	65	67
c/f	898	-	-	724	626

HOUSING CLEARANCE PROGRAMME, Cont.

Description of Property	No. of houses in Area	Date of Representation or Report	Date of Confirmation of Order	No. of families rehoused 3/11/55 - 31/12/64	No. of houses demolished to 31/12/64
b/f	898	-	-	724	626
3. <u>HOUSES BELONGING TO THE CORPORATION AND DEMOLISHED WITH APPROVAL OF THE MINISTRY OF HOUSING AND LOCAL GOVERNMENT</u>	6 3 4 3 4 1	- - - - - -	- - - - - -	3 2 4 2 3 1	6 3 4 3 3 1
4. <u>HOUSES DEALT WITH BY INDIVIDUAL DEMOLITION OR CLOSING</u>					
(a) <u>Demolition Orders:</u>					
During 1955	1	-	-	1	1
During 1956	4	-	-	3	4
During 1957	9	-	-	6	9
During 1958	11	-	-	9	11
During 1959	14	-	-	12	14
c/f	958	-	-	770	685

HOUSING CLEARANCE PROGRAMME, Cont.

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Description of Property	No. of houses in Area	Date of Representation Report	Date of Confirmation of Order	No. of families rehoused 3/11/55 - 31/12/64	No. of houses demolished to 31/12/64
<p align="center">b/f</p> <p>4. HOUSES DEALT WITH BY INDIVIDUAL DEMOLITION OR CLOSING</p> <p>(a) Demolition Orders Cont:</p> <p>During 1960</p> <p>During 1961</p> <p>During 1963</p> <p>During 1964</p> <p>(b) Closing Orders:</p> <p>During 1955</p> <p>During 1956</p> <p>During 1959</p> <p>During 1960</p> <p>During 1961</p> <p>During 1962</p> <p>During 1963</p> <p>During 1964</p>	<p>958</p> <p>3</p> <p>1</p> <p>5</p> <p>2</p> <p>1</p> <p>1</p> <p>1</p> <p>7</p> <p>2</p> <p>6</p> <p>3</p> <p>1</p>	<p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p>770</p> <p>2</p> <p>-</p> <p>4</p> <p>-</p> <p>1</p> <p>-</p> <p>1</p> <p>7</p> <p>-</p> <p>5</p> <p>3</p> <p>1</p>	<p>685</p> <p>2</p> <p>1</p> <p>4</p> <p>-</p> <p>-</p> <p>-</p> <p>2</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>
TOTALS	991	-	-	794	694

IMPROVEMENT GRANTS

1.	Number of applications received to 31st December 1963 ...	306
	Number of applications received during the year ...	55
	Total applications received to 31st December, 1964 ...	361
2.	Number of applications approved to 31st December 1963 ...	305
	Number of applications approved during the year ...	55
	Total applications approved to 31st December 1964... ..	360
3.	Number of applications withdrawn to 31st December 1963 ...	12
	Number of applications withdrawn during the year ...	1
	Total applications withdrawn to 31st December, 1964 ...	13
4.	Number of cases where work was completed by 31st December, 1963..	262
	Number of cases where work was completed during the year	53
	Total number of cases where work was completed by 31st December, 1964	315
5.	Expenditure ranking for grant approved to 31st December, 1963..	£44,397.18. 9d
	Expenditure ranking for grant approved during the year	10,634. 1. 2d
	Total expenditure ranking for grant approved to 31st December, 1964... ..	£54,031.19.11d
6.	Expenditure on works and repairs not ranking for grant in cases approved to 31st December, 1963	£17,943. 3. 4d
	Expenditure on works and repairs not ranking for grant in cases approved during the year... ..	3,297. 4. 2d
	Total expenditure on works and repairs not ranking for grant in cases approved to 31st December, 1964	£21,240. 7. 6d
7.	Average grant per house	£75. 0.10d
8.	Number of grants repaid to 31st December 1964 ...	14
	Total amount of grant repaid	£808. 2. 1d

NOTE:- The above expenditure figures include the figures in respect of the applications approved but later withdrawn or repaid.

CERTIFICATES OF DISREPAIR

Rent Act 1957

Part I - Application for Certificates of Disrepair

Number of applications for certificates	3
Number of decisions not to issue certificates	Nil
Number of decisions to issue certificates -	
(a) in respect of some but not all defects	1
(b) in respect of all defects... ..	2
Number of undertakings given by landlords under paragraph 5 of the first schedule	1
Number of undertakings refused by Local Authority under proviso to paragraph 5 of the first schedule	Nil
Number of certificates issued... ..	2

Part II - Applications for Cancellation of Certificates

Number of applications by landlords to Local Authority for cancellation of certificates	Nil
Number of objections by tenants to cancellation of certificates	Nil
Number of decisions by Local Authority to cancel in spite of tenant's objections	Nil
Number of certificates cancelled by Local Authority	Nil

FACTORIES ACT 1961

1. INSPECTIONS for purposes of provisions as to health (including inspections made by Public Health Inspectors).

Particulars	Number on Register	Inspection	Number of	
			Written Notices	Occupiers Prosecuted
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	10	6	-	-
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	160	40	5	-
(iii) Other premises in which Section 7 is enforced by the Local Authority (excluding outworkers premises).	11	3	1	-
TOTAL	181	49	6	-

2. CASES in which defects were found

Particulars	Number of cases in which defects were found			
	Found	Remedied	Referred to H.M. Inspector	Referred by H.M. Inspector
Want of Cleanliness (S.1.)	-	-	-	-
Sanitary Conveniences (S.7.)				
(a) Insufficient	2	2	-	2
(b) Unsuitable or defective	4	4	-	1
(c) Not separate for sexes	-	-	-	-
TOTAL	6	6	-	3

3. OUTWORKERS. Lists required by Section 110 were received relating to 74 outworkers all engaged in making wearing apparel.

Offices, Shops and Railway Premises Act, 1963

The above mentioned Act which came into force during 1964 contained provisions relating to the health, safety and welfare of employees in offices, shops and certain other premises. The following tables, have been abstracted from the annual report submitted to the Ministry of Labour.

Registrations and General Inspections

Class of premises	Number of premises registered during the year	Total number of Registered premises at end of year	Number of registered premises receiving a general inspection during the year
Offices	114	114	69
Retail shops	393	386	195
Wholesale shops, warehouses	22	22	11
Catering establishments open to the public, canteens	42	42	12
Fuel storage depots	2	2	-
TOTALS	573	566	287

NUMBER OF VISITS OF ALL KINDS BY INSPECTORS TO REGISTERED PREMISES - 380

Analysis of persons employed in Registered Premises

Class of workplace	Number of persons employed
Offices	1,015
Retail shops	1,959
Wholesale departments, warehouses	201
Catering establishments open to the public	461
Canteens	19
Fuel storage depots	18
Total	3,673
Total Males	1,311
Total Females	2,362

Exemptions and Prosecutions

No exemptions were applied for during the year, nor prosecutions instituted.

Contraventions found

Premises requiring cleansing in some form	...	...	...	...	117
Provision of heating and/or thermometer	...	...	...	...	156
Inadequate ventilation	...	...	...	...	34
Defective or inadequate sanitary accommodation	...	...	...	...	182
Defective or inadequate washing facilities	...	...	...	...	6
Inadequate drinking water facilities	...	...	...	...	6
Absence of adequate facilities for storage of outdoor clothing					16
Lack of adequate eating facilities in shops	...	...	...	...	6
Defective floors, passages or staircases	...	...	...	...	41
Lack of First Aid equipment	...	...	...	...	204
Overcrowding	...	...	...	...	10
Inadequate lighting	...	...	...	...	9

Accidents

3 accidents were reported during the year. All were investigated but no formal action was required.

RODENT CONTROL

The Corporation employ two full-time rodent operators and the extermination methods employed are poisoning, gassing and trapping. The following table summarises the work carried out:-

	Type of Property			Total
	Local Auth.	Dwell. Hses.	Bus. Pres.	
<u>NUMBER OF PROPERTIES INSPECTED:</u>				
(1) Primary Inspections:				
(a) as a result of notification	15	247	66	328
(b) otherwise	-	382	-	382
(a) Re-inspections:				
(a) as a result of notification	-	12	3	15
(b) otherwise	-	8	-	8
Total properties inspected	15	649	69	733
<u>NUMBER OF PROPERTIES FOUND TO BE INFESTED BY RATS</u>				
(1) On Primary Inspections:				
(a) Major	-	-	-	-
(b) Minor	12	394	28	434
(2) Re-infestations:				
(a) Major	-	-	-	-
(b) Minor	-	19	1	20
<u>NUMBER OF PROPERTIES FOUND TO BE INFESTED BY MICE</u>				
(1) On Primary Inspections.. .. .	2	70	35	107
(2) On re-inspections	-	1	2	3
Total infestations found	14	484	66	564
<u>NUMBER OF INFESTED PROPERTIES TREATED BY LOCAL AUTHORITY</u>				
(1) Primary treatments:				
(a) for rats	14	388	22	424
(b) for mice	2	79	37	118
(2) Treatment for re-infestation				
(a) for rats	2	33	1	36
(b) for mice	-	-	1	1
Total treatments	18	500	61	579

NOTE: A treatment means a complete treatment for the destruction of rats and mice and includes not only the initial treatment, but when necessary, post-baiting and follow-up treatment.

RODENT CONTROL, Cont.

Following the treatments carried out, 1,103 rats and 618 mice were picked up, whilst the estimated kill was 2,620 rats and 980 mice.

During the year the rodent operators paid 5,263 visits in connection with the inspection and treatment of premises.

Two maintenance treatments of the sewers were also carried out. 771 manholes were baited and 491 takes of poison bait were recorded, showing an estimated kill of 1,290 rats.

PET ANIMALS ACT 1951

There are seven premises in the Borough licensed for the sale of pet animals. All these premises comply with the recommended conditions of the Royal Society for the Prevention of Cruelty to Animals, which were adopted by the Council.

INSPECTION AND SUPERVISION OF FOOD

FOOD HYGIENE

Food hygiene has continued to receive the attention of the public health inspectorate and 883 visits have been made for this purpose.

All plans of food premises submitted to the Borough Engineer are scrutinised for compliance with the various Acts and Regulations and where amendments are necessary the owner or architect is advised and corrections made before submission to the appropriate Committees. This system has worked very well indeed and architects and others have co-operated fully with the Department.

The following is a list of the various types of food premises in the Borough.

Number and type of food premises

Premises requiring registration

For the manufacture of Ice Cream	3
For the storage and sale of Ice Cream	243
For the preparation and manufacture of sausages or pressed, potted or preserved meat, etc. ...	19
Dairies	1

Other premises

Fried Fish Shops	41
Wet Fish Shops	6
Bakehouses	8
Butchers Shops	48
Tripe Shops... ..	1
Restaurants, Cafes, etc... ..	33
School canteens	11
Factory canteens	27
Licensed premises -	
Full licences	65
Beer licences	4
Clubs	29
Off licences... ..	22
On licences	1
Restaurant licences	4
Grocery and Confectionery shops	195
Greengrocery	30
Health Food Stores and Herbalists	3
Sweet Shops... ..	43

FOOD INSPECTION

There are no slaughterhouses in the Borough.

The following table shows the foods condemned during the year on account of decomposition, etc.

TINNED FOODS

	lbs	
Meat... ..	1,249	
Fruit	3,191	
Vegetables... ..	988	
Fish... ..	58	
Miscellaneous	526	6,012 lbs.

OTHER FOODS

Meat... ..	1,478	
Fish... ..	125	
Fruit	388	
Vegetables... ..	326	
Butter	49	
Miscellaneous	45	2,411 lbs.
TOTAL	8,423	lbs.

ICE CREAM

Ice cream was manufactured at three premises in the Borough in 1964, while 243 premises were registered for the storage and sale of ice cream. A complete cold mix is used at two of the manufacturing premises in the Borough and pasteurisation at the other.

64 samples of ice cream were submitted for bacteriological examination and the results of the examinations are shown below.

Ice Cream	Methylene Blue Test Grading				Total
	Grade 1	Grade 2	Grade 3	Grade 4	
Samples taken at manufacturing premises...	21	10	1	3	35
Samples taken from retailers in the Borough	24	5	-	-	29
TOTALS	45	15	1	3	64

Ten samples of ice cream were taken under the Food and Drugs Act, for chemical analysis. The average fat content of these samples was 8.7% and the average non-fatty solids 12.7%

MILK

Distributors of Milk

Registered distributors of milk	...	...	...	...	155
Registered dairies	...	...	...	...	1

Designated Milk

Dealer's pre-packed licences...	149
---------------------------------	-----	-----	-----	-----	-----

Pasteurised Milk

Establishments at which milk is pasteurised -

Holder Process	...	...	...	...	...	...	-
H.T.S.T. Process	...	...	...	...	...	...	1

MILK SAMPLING

During the year 142 samples of designated milks were taken for bacteriological examination and the following table provides details of the results.

No. of Samples	Description of milk	Methylene Blue Test		Phosphatase Test		Turbidity Test	
		Passed	Failed	Passed	Failed	Passed	Failed
8	Tuberculin Tested (Pasteurised)	8	-	8	-	-	-
107	Pasteurised	106	1	107	-	-	-
27	Sterilised	-	-	-	-	27	-
142	TOTALS	114	1	115	-	27	-

The following table shows the average fat and solids-not-Fat contents of milk samples taken under the Food and Drugs Act 1955.

SUMMARY OF CHEMICAL ANALYSES OF MILK SAMPLES

PERIOD	No. of samples examined	Averages	
		Milk Fat %	Solids-not-Fat %
1st January, 1964 to 31st December, 1964	23	3.50	8.75

SLAUGHTER OF ANIMALS ACT 1958

The number of slaughtermen's licences issued in 1964 was 10.

KNACKER'S YARD

There is one Knacker's Yard in the Borough. These premises are not licensed for the slaughter of horses.

FOOD AND DRUGS ACT 1955

During the year 33 formal and 147 informal samples were submitted to the Public Analyst for analysis.

Nature of Sample	No. of Samples		Number of samples adulterated or not genuine
	Informal	Formal	
Milk	13	17	7
Meat and Meat Products	29	-	4
Fish and Fish Products	6	-	-
General Groceries	63	-	6
Preserves	1	-	-
Ice Cream	10	-	-
Flour Confectionery	12	-	8
Sugar Confectionery	9	-	-
Cordials	1	-	1
Medicines etc.	3	-	-
Beer and Spirits	-	16	-
	147	33	26
	180		

In addition to the above samples which were submitted to the Public Analyst, twelve additional samples were brought to the office.

FOOD AND DRUGS ACT 1955

The table below shows details of the samples found not to be genuine or otherwise unsatisfactory and of the relative action taken.

Sample Number	Article	Adulteration or other irregularity	Action Taken
2813	Bottle of Milk	Contained a slug	Vendor prosecuted. Case dismissed.
2814	Bottle of Milk	Contained mouldy dried milk	Vendor prosecuted. Fined £5.
2815	Bottle of Milk	Contained foreign Matter	Vendor prosecuted. Fined £5.
2826	Scotch Moist	Unsatisfactory labelling	Manufacturer agreed to amend label.
2828	Brown loaf	Contained a wasp	Manufacturer cautioned.
2829	Loaf of bread	Contained foreign matter	Manufacturer cautioned.
2830	Margarine	Contained string	Manufacturer cautioned.
2842	Stewed Steak	Label bore a false description	Manufacturer cautioned.
2848	Steak and Kidney Pie	Deficient in meat and contained no kidney	Manufacturer cautioned.
2852	Loaf of Bread	Contained an insect	Manufacturer cautioned.
2854	Bottle of Milk	Contained horse chestnut	Vendor cautioned.
2855	Loaf of Bread	Contained a moth	Manufacturer cautioned.
2856	Bottle of Milk	Contained pieces of glass	Vendor cautioned.
2857	Mince Pie	Contained piece of wire	Manufacturer cautioned.
2859	Sultanas	Contained piece of metal	Manufacturer cautioned.
2867	Sausage	Contained smear of carbonised lubricating oil.	Manufacturer cautioned.

Sample Number	Article	Adulteration or other irregularity	Action Taken
2674	Apple Turnover	Mould growth on surface of filling	Manufacturer cautioned.
2687	Bottle of Milk	Contained foreign matter	Vendor prosecuted Fined £5.
2688	Bottle of Milk	Contained metal foil cap	Vendor prosecuted Fined £5.
2710	Branston Pickle	Contained foreign matter	Manufacturer cautioned.
2711	Bottle of Milk	Contained foreign matter	Vendor cautioned.
2730	Soup	Contained cockroach	Vendor prosecuted Fined £20.
2731	Piccalilli	Contained piece of glass	Manufacturer cautioned.
2732	Meat and Potato Pie	Contained moth larva	Manufacturer cautioned.
2733	Cheese	Contained piece of metal	Vendor cautioned.
2745	Butter	Contained matchstick	Manufacturer cautioned.
2746	Potato Crisps	Contained crystalline deposit	Manufacturer cautioned.
2768	Loaf of Bread	Contained parts of dead insect	Manufacturer prosecuted. Fined £10.
2769	Butter	Contaminated with mould	Vendor cautioned.
2770	Loaf of Bread	Contained rubber band	Manufacturer cautioned.
2772	Portion of Loaf	Contained insect larva	Manufacturer cautioned.
2774	Dandelion and Burdock	Contained yeasts and was viscous	Manufacturer cautioned.
2788	Stewed Beef Steak	Deficient in meat content.	Stocks withdrawn.

Sample Number	Article	Adulteration or other irregularity	Action Taken
2796	Meat Pattie	Affected with mould	Manufacturer cautioned.
2811	Bottle of Milk	Contained dried out milk and mould	Vendor prosecuted. Fined £5.
2812	Sultanas	Contained maggots	Manufacturer cautioned.

ATMOSPHERIC POLLUTION

The implementation of the provisions of the Clean Air Act, 1956 once again occupied a proportion of the time of the public health inspectorate and 796 inspections were made under the Act.

1 application was submitted to the local authority for 'prior approval', 2 notifications were received of 'intention to install' furnaces under Section 3 of the Act.

The Borough of Crewe No. 1 (Marshfield Bank and Wistaston Green) Smoke Control Order, 1960 covering some 270 acres on the westerly side of the borough, and affecting some 1,085 properties came into operation on the 1st October, 1962.

On the 29th May, 1964, the Council made a second order, known as the Borough of Crewe No. 2 (Wistaston Green and The Valley) Smoke Control Order, 1964. This Order, which covers 208 acres and 1,028 properties in an area adjacent to and to the east of the first area, was confirmed on the 5th March, 1965, to become operative on the 1st July, 1966.

The department has, since 1949, in co-operation with the Department of Scientific and Industrial Research, made regular monthly recordings of the degree of air pollution throughout the borough. The analyses of the readings of the various stations are shown in the appended tables and graphs.

In 1961, Crewe was selected as one of 120 towns to take part in a National Survey of Atmospheric Pollution and five additional sets of instruments have been installed at particular sites in the district.

The sites selected cover five types of district in accordance with the recommendations of the Department of Scientific and Industrial Research as follows:

Crewe Site

- | | |
|---|---------------------------------------|
| (a) Residential area with a high population density | Stalbridge Road Clinic |
| (b) Residential area with a low population density | College Annexe, Railton Avenue |
| (c) Industrial area | Railway Works |
| (d) Commercial area | British Railway Laboratory, Town Hall |
| (e) Smoke Control area | Sewage Works |

The results obtained are collated by the Warren Spring Laboratory of the Department of Scientific and Industrial Research.

VOLUMETRIC CONCENTRATION OF SMOKE
IN THE ATMOSPHERE - YEAR 1964
Average daily concentration expressed as microgrammes
per cubic metre

MONTH	A Residential Area, high population density		B Residential Area, low population density		C Industrial Area		D Commercial Area		E Smoke Control Area	
	1963	1964	1963	1964	1963	1964	1963	1964	1963	1964
Jan.	563	434	406	297	407	330	507	280	258	158
Feb.	476	376	327	257	312	302	333	226	201	138
March	289	340	165	216	153	291	216	96	63	128
April	284	178	141	97	*	116	182	76	69	31
May	165	109	77	63	102	78	111	80	26	*
June	117	111	65	65	39	95	74	106	32	27
July	121	76	*	44	86	*	76	77	27	23
August	*	84	*	40	123	79	78	88	*	24
Sept.	217	130	144	64	165	86	177	115	62	41
Oct.	230	424	144	249	146	262	131	360	50	143
Nov.	309	468	227	244	239	302	163	326	*	143
Dec.	*	554	*	360	*	*	225	489	*	194

* No results obtained.

**VOLUMETRIC CONCENTRATION OF SULPHUR
DIOXIDE IN THE ATMOSPHERE - YEAR 1964**

Average daily concentration expressed as microgrammes per cubic metre

MONTH	A Residential Area, high population density		B Residential Area, low population density		C Industrial Area		D Commercial Area		E Smoke Control Area	
	1963	1964	1963	1964	1963	1964	1963	1964	1963	1964
Jan.	634	366	417	265	564	327	603	350	317	140
Feb.	503	331	366	259	431	335	475	304	261	158
March	228	326	144	204	190	337	256	249	92	169
April	138	153	*	119	205	219	205	149	93	59
May	141	89	86	77	136	153	130	105	54	*
June	121	101	88	83	133	161	113	128	67	64
July	113	96	*	68	104	*	115	102	62	54
August	*	102	*	64	142	142	117	105	*	47
Sept.	172	140	120	82	171	125	169	121	66	73
Oct.	165	286	138	159	153	208	165	296	58	110
Nov.	252	304	203	217	219	224	254	291	*	146
Dec.	*	415	*	324	*	*	432	426	*	199

* No results obtained.

ATMOSPHERIC POLLUTION - SMOKE DEPOSITED MATTER 1964

Monthly Deposits in Tons per Square Mile

MONTH	ASHBANK CO-OP STORES			IMPERIAL CHAMBERS			SEWAGE WORKS			ELM DRIVE			CREWE GATES FARM		
	1962	1963	1964	1962	1963	1964	1962	1963	1964	1962	1963	1964	1962	1963	1964
Jan.	23.63	11.21	13.65	22.24	12.72	22.29	9.57	7.96	6.48	18.01	17.75	13.23	16.70	8.93	10.23
Feb.	12.56	11.68	12.62	14.46	13.26	15.23	7.45	4.62	6.75	20.82	11.40	10.24	9.59	4.42	8.41
March	13.15	12.34	13.97	16.48	13.07	20.45	7.68	6.89	8.81	11.35	15.89	12.75	8.02	8.03	9.02
April	15.68	12.29	11.74	17.32	15.96	15.55	8.92	8.48	6.54	13.19	9.38	12.21	10.88	7.97	9.66
May	14.15	13.12	13.33	16.96	17.73	19.19	7.88	7.40	9.56	11.75	14.70	16.33	12.42	9.13	13.89
June	9.76	11.95	9.84	9.84	15.04	13.02	6.21	7.54	9.78	7.20	*	12.32	10.62	12.74	11.11
July	11.36	10.92	12.22	14.62	12.36	13.22	7.50	5.32	13.57	10.08	15.67	13.11	9.93	9.91	10.59
August	8.36	10.04	13.30	10.65	13.06	14.16	5.13	10.30	3.36	8.25	11.24	24.97	9.42	8.37	12.69
Sept.	12.49	10.75	10.32	18.85	15.65	15.43	5.85	6.32	7.56	11.94	14.59	10.74	10.05	12.13	11.69
Oct.	11.30	12.10	15.34	13.42	15.21	16.77	5.51	5.77	8.88	8.01	9.86	11.19	6.31	11.24	12.84
Nov.	14.51	13.68	11.38	17.33	16.39	12.74	7.67	6.22	6.24	11.09	12.84	10.04	10.05	9.69	12.01
Dec.	13.92	8.48	11.25	24.55	15.76	15.82	9.59	4.30	8.08	*	10.00	15.04	15.67	7.04	11.89
TOTALS	160.87	138.56	148.96	196.72	181.21	193.92	88.96	81.12	100.61	131.69	143.32	162.22	129.66	109.65	134.03
MONTHLY AVERAGE	13.41	11.55	12.41	16.39	15.10	16.16	7.41	6.76	8.33	11.97	13.03	13.52	10.81	9.14	11.17

* No result obtained owing to damage to equipment.

ATMOSPHERIC POLLUTION

Sulphur Dioxide by the Lead Peroxide Method
Results expressed as mg./SO₂/day/100 sq.c.m. of Batch
"A" Lead Peroxide exposed under a louvered cover

MONTH	ASHBANK CO-OP STORES			IMPERIAL CHAMBERS			SEWAGE WORKS			ELM DRIVE			CREWE GATES FARM		
	1962	1963	1964	1962	1963	1964	1962	1963	1964	1962	1963	1964	1962	1963	1964
Jan.	3.05	3.72	3.28	4.54	5.11	4.17	1.21	2.54	1.45	2.10	2.36	1.94	2.09	2.09	1.69
Feb.	3.65	3.09	2.98	3.65	4.44	3.04	0.90	1.59	1.87	1.43	2.38	1.44	1.31	2.74	2.15
March	3.42	2.68	3.83	4.81	3.37	2.95	1.76	1.13	2.31	2.05	1.49	1.76	2.28	1.45	1.75
April	1.87	2.11	2.18	3.27	2.79	2.46	0.92	0.98	0.81	1.15	1.31	1.04	1.38	1.02	1.14
May	1.34	1.46	1.40	2.00	1.96	1.93	0.63	0.43	0.47	0.92	0.75	0.57	1.12	1.03	0.79
June	1.19	0.91	1.15	1.37	1.13	1.33	0.48	0.49	0.48	0.63	0.43	0.68	0.96	0.70	0.42
July	0.78	1.04	0.78	0.95	1.19	0.95	0.38	0.37	0.36	0.41	0.46	0.41	0.58	0.75	0.59
August	0.77	0.94	0.84	1.07	1.22	1.04	0.28	0.35	0.32	0.46	0.30	0.41	0.67	0.78	0.61
Sept.	1.52	1.26	1.39	1.94	1.22	1.54	0.64	0.45	0.57	0.80	0.74	0.65	1.09	1.01	0.92
Oct.	1.75	2.20	1.69	2.56	1.94	2.14	0.81	0.76	1.02	1.01	0.95	1.17	1.15	1.30	1.31
Nov.	2.72	2.84	1.44	3.84	3.33	2.66	1.34	1.03	0.86	1.66	1.31	1.09	1.58	1.51	2.08
Dec.	3.07	3.96	3.33	4.10	4.00	4.19	1.60	2.00	1.51	1.11	2.04	1.86	2.12	1.91	2.10
TOTALS	25.13	26.21	24.29	34.10	31.70	28.40	10.95	12.12	12.03	13.73	14.52	13.02	16.33	16.29	15.55
MONTHLY AVERAGE	2.09	2.18	2.02	2.84	2.64	2.36	0.91	1.01	1.00	1.14	1.21	1.08	1.36	1.36	1.29

ATMOSPHERIC POLLUTION
Monthly Rainfall in Inches

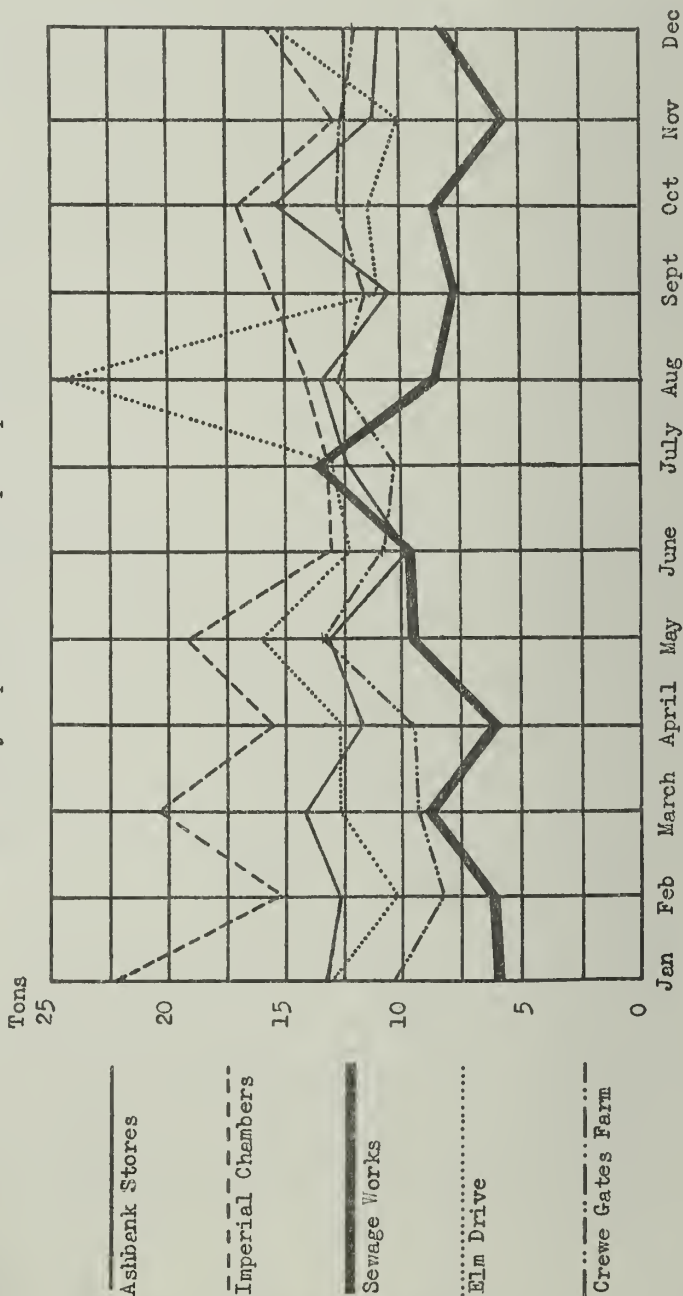
	ASHBANK CO-OP STORES			IMPERIAL CHAMBERS			SEWAGE WORKS			ELM DRIVE			CREWE GATES FARM		
	1962	1963	1964	1962	1963	1964	1962	1963	1964	1962	1963	1964	1962	1963	1964
Jan.	2.13	0.77	0.57	2.14	0.74	0.66	2.22	0.75	0.63	2.33	0.86	0.62	1.98	0.62	0.61
Feb.	1.12	0.11	0.85	1.27	0.10	0.77	1.32	0.10	0.86	1.43	0.21	0.91	1.28	0.13	0.79
March	0.90	0.73	2.00	0.91	0.70	1.83	0.96	0.72	2.06	1.04	0.83	2.27	0.97	0.79	1.93
April	2.59	1.93	2.29	2.57	0.96	2.21	2.61	2.06	2.30	2.76	2.27	2.59	2.53	2.02	2.11
May	2.38	1.19	1.79	2.44	1.26	1.68	2.45	1.18	2.13	2.58	1.69	2.10	2.68	1.19	1.84
June	1.10	2.94	1.57	1.15	2.93	1.49	1.04	3.03	1.78	1.18	2.95	1.88	1.19	3.64	1.92
July	2.42	1.74	1.82	2.46	1.19	1.88	2.43	1.80	1.98	2.88	1.63	1.99	2.47	1.80	1.93
August	3.02	2.19	1.55	2.99	2.02	1.62	3.00	2.27	1.81	3.35	2.44	1.85	3.20	2.21	2.20
Sept.	2.47	2.15	0.87	2.52	2.18	0.89	2.47	2.14	1.14	2.93	2.56	1.22	2.63	2.18	1.08
Oct.	1.22	2.21	2.29	1.14	2.21	2.41	1.19	2.33	2.62	1.34	2.50	1.94	1.04	2.19	2.24
Nov.	1.69	3.52	1.44	1.69	3.74	1.41	1.81	3.60	1.52	1.93	3.80	1.59	1.47	3.41	1.43
Dec.	2.20	0.19	2.79	2.19	0.16	2.77	2.16	0.22	2.97	*	0.25	2.91	1.93	0.18	2.25
TOTAL	23.24	19.67	19.83	23.47	18.19	19.62	23.66	20.20	21.80	23.75	21.99	21.87	23.37	20.36	20.33
MONTHLY AVERAGE	1.94	1.64	1.65	1.95	1.52	1.66	1.97	1.69	1.82	2.16	1.83	1.82	1.95	1.70	1.69

* No result obtained owing to damage to equipment.

ATMOSPHERIC POLLUTION - SMOKE DEPOSITED MATTER 1964

GRAPH I

Monthly Deposits in Tons per Square Mile



ATMOSPHERIC POLLUTION - SULPHUR DIOXIDE DEPOSITS 1964

GRAPH II

Results expressed as $Mg.SO_3/Day/100\text{ sq.cm.}$ of Batch
'A' Lead Peroxide exposed under a louvered cover.

Milli-grams.

